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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/496,383 02/02/00 LUU

P 1775-1A

IM22/0730
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WASHINGTON DC 20005-3315

EXAMINER

REDDICK, M

ART UNIT	PAPER NUMBER
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1713

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DATE MAILED: 07/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/496,383

Applicant(s)

LUU ET AL.

Examiner

D. R. Wilson

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed 5/17/01, has been fully considered and overcomes the previous rejections under 35 U.S.C. § 112, second paragraph, and those rejections are withdrawn. However, the amendment is not deemed to be persuasive in overcoming the prior art rejections which are maintained for the reasons discussed below.

Previously Cited Statutes

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112, Second Paragraph

3. ***Claims 32-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*** Claims 32-33 are indefinite because the claim is to the adhesive composition, not to a composition of the fiber and the adhesive composition. Thus, there is no clear meaning of "--- is kept in the range of about 0.03 to about 0.2 percent by weight based on the total weight of fiber in the fibrous web". It should also be noted that if applicant amends the claim to read on a fibrous web containing the adhesive composition, the claims would be withdrawn from consideration as being drawn to a non-elected invention by original presentation, the relationship being that of intermediate and final product.

Rejection Under 35 USC § 112, Fourth Paragraph

4. The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

5. ***Claims 32-33 are rejected under 35 U.S.C. § 112, fourth paragraph, for not further limiting the subject matter from which the claim depends.*** The limits of the amount of adhesive composition on the fiber does not further limit the adhesive composition.

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Claim Rejections – 35 U.S.C. § 102(e)/§ 103(a)

6. **Claims 1-3, 26, 29 and 32-33 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, Claims 1-3, 26 and 29-33 are rejected under 35 U.S.C. 103(a) as obvious over**

Kotani'560 or Kotani'029 The basis of this rejection was stated in Detailed Action § 6 of the previous Office Action, which is incorporated herein by reference.

7. **Claims 1-3, 26 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollenberg;** The basis of this rejection was stated in Detailed Action § 9 of the previous Office Action.

8. **Claims 1-5 and 26-33³ are rejected under 35 U.S.C. 103(a) as being unpatentable over Smigo in combination with Hollenberg.** The basis of this rejection was stated in Detailed Action § 10 of the previous Office Action..

9. In regards to new Claims 29-33, one would readily envisage between 90 to about 99 % liquid component (instant Claim 29) because exemplified examples of the Kotani references and Smigo references are within this range, and Hollenberg teaches that the liquid component is present usually in an amount of 90 to 99.98 wt.% (col. 6, lines 34-36). As to Claims 32-33, the added claim limitations do not appear to pertain to what is being claimed, i.e., the adhesive composition. In regards to the ratios of zirconium crosslinking agent and organic polymer each of the references teach broad workable ranges of the zirconium based crosslinking agent at least overlapping the scope of what is being claimed (Kotani references, cols. 8, Hollenberg, col. 5, lines 13-34, and examples). Finding optimum or workable ranges such as are claimed would have been obvious to one of ordinary skill in the art.

It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402.

10. Applicant traverses the rejection over the Kotani references arguing that the patentee compositions are not tenable as creping adhesives because the presence of the clay minerals would destroy the utility of the composition as a creping adhesive and would also destroy the creping blade used in the paper making process. This is not deemed to be persuasive for reasons which follow. First it is pointed out that the presence of the clay minerals is not precluded by the instant claims due to the "comprising language". Secondly, applicant's arguments are not deemed to be persuasive because they

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are not supported by any evidence that either the utility of the adhesive, or that the creping blade, would be destroyed. Applicant's attention is also drawn to the fact that the compositions of the Kotani references are applied by the gravure method which normally requires the use of doctor blade. Applicant's arguments are further not deemed to be persuasive, because as applicant admits, the Kotani references disclose in the comparative experiments compositions of the instant invention not containing the clay minerals.

The disclosure of a composition of matter in a reference may be anticipatory even though the reference indicates that the composition is not preferred or even that it is unsatisfactory for the intended purpose. *In re Nehrenberg* 126 USPQ 383. Similarly, all disclosures of the prior art, including unpreferred or auxiliary embodiments, must be considered in determining obviousness. *In re Mills*, 176 USPQ; *In re Lamberti*, 192 USPQ 278; *In re Boe*, 148 USPQ 507.

A reference is available for all that it teaches, including disclosures that teach away from invention as well as disclosures that point toward invention. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 296 (Fed. Cir. 1985).

11. Applicant traverses the rejection over Hollenberg on the basis that the polymers are cross-linked by ionic cross-linking whereas applicant teaches that the cross-linking occurs by covalent bonding. This is not deemed to be persuasive because the instant claims are to a composition comprising a polymer and a cross-linking agent which is taught and/or obvious over Hollenberg. As the components of the compositions are the same, the mechanism of cross-linking which subsequently occurs is presumed to be the same whether or not applicant or patentee correctly postulates the mechanism. As chitosan is within the generic teaching of Hollenberg, lacking a showing of criticality for the use of chitosan over the other polysaccharides and polymers taught therein, it would have been obvious to one of ordinary skill in the art to use chitosan with an expectation of equivalent results. This is not a modification of the teachings of Hollenberg, but rather a selection among components taught to be equivalent. Applicant's statement that "--- substitution of a polymer containing an amine group into the process of Hollenberg would render the composition unusable as a creping adhesive" is interesting, particularly as this would result in compositions of the instant invention which applicant claims is usable as a creping adhesive. The statement is therefore also not deemed to be persuasive.

12. Applicant argues that the quantities of cross-linking agent disclosed by Shigo are too low to impart creping adhesive qualities to the compositions claimed by Shigo. Applicant attempts to support

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this argument alleging that Shigo discloses at most 50 wt.% of cross-linking agent, and that Table 8 of the disclosure shows that 100 to 200 wt.% of glyoxal are required to achieve a composition comparable to that of the instant invention. If this argument can be shown to be true, and such a showing were commensurate in scope with what is being claimed, applicant's argument would receive favorable consideration. However, Shigo does not teach at most 50 wt.%, rather "typically 2 to 50 wt.%" (col. 6, lines 17-20). Secondly, it is not clear to the Examiner that the Examples in Table 8 show that compositions equivalent to those cross-linked with 100 to 200 wt.% glyoxal are required to obtain compositions effective as creping adhesives, or to be comparable to compositions within the scope of what is being claimed. Further, one would expect the amount of cross-linking agent required would vary with and be a function of the polymer being used. Applicant has also argued the Luu declaration shows that mixing of the components before application on the dryer surface does not result in the useful creping adhesive of applicant's invention. This is not deemed to be persuasive because applicant's claims are to the adhesive composition, not to a process of how or when it is used. It remains that the compositions obvious from the teachings of Smigo in combination with Hollenberg make the instantly claimed compositions obvious.

Action Is Final

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art of Interest/Technological Background

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Greer discloses polyamine compositions in combination with ammonium zirconium carbonate and may be

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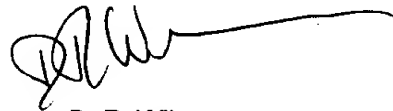
used in a future rejection of the claimed subject matter. A rejection is not being made at this time as the outstanding rejections are still believed to be valid.

Future Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. R Wilson whose telephone number is 703-308-2398.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 703-308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications. The unofficial direct fax phone number to the Examiner's desk is 703-872-9029.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-2351.

A handwritten signature in black ink, appearing to read 'D. R. Wilson', with a long horizontal flourish extending to the right.

D. R. Wilson
Primary Examiner
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